

Application No.: 10/643605

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Listing of the Claims

Claim 1 (Original). An isolated metalized protein polymer wherein the polymer is coated with a single metal species.

Claim 2 (Original). The isolated metalized protein polymer of Claim 1 wherein the protein polymer is selected from the group consisting of actin fibers, intermediate filaments, fibrin, collagen fibers, silk proteins, elastin, bacterial coat proteins, microtubules, avidin, streptavidin, immunoglobulin binding protein, immunoglobins, and receptor proteins.

Claim 3 (Original). The isolated metalized protein polymer of Claim 2 wherein the protein polymer has an aspect ratio greater than 10.

Claim 4 (Original). The isolated metalized protein polymer of Claim 3 wherein the protein polymer is tubular in structure.

Claim 5 (Original). The isolated metalized protein polymer of Claim 4 having a length of 10 microns or less, having an external diameter of about 4 nm to about 30 nm and having an internal diameter of about 0 nm to about 20 nm.

Claim 6 (Original). The isolated metalized protein polymer of Claim 5 wherein the protein polymer comprises tubulin.

Claim 7 (Original). The isolated metalized protein polymer of Claim 1 wherein the coating of the protein polymer is interrupted.

Claim 8 (Original). The isolated metalized protein polymer of Claim 1 wherein the coating of the protein polymer is continuous.

Claim 9 (Original). The isolated metalized protein polymer of Claim 1 wherein the single metal species is selected from the group consisting of gold, silver, platinum and palladium.

Claim 10 (Original). An isolated microtubule wherein the microtubule is continuously coated with gold.

Claims 11 – 31 (Canceled).